

Short CV

EDUCATION

Barend C B Bezuidenhout obtained his M.Sc. (with distinction) from the University of the Orange Free State in 1977 under the guidance of the late Prof DG Roux and his Ph.D. in 1985 with Prof D Ferreira as promotor. During 1988 he spent a year as Post-doctoral Research Fellow in the Synthetic Organic Chemistry group of Prof AGM Barrett at Northwestern University in Evanston, Illinois, USA. A four month sabbatical was also spent as Research Fellow in the Synthetic Organic Chemistry group of Prof SV Ley at Cambridge University, Cambridge, UK during the first part of 1994. During 1999 he completed the Programme in Engineering Management at the University of Pretoria's Business school.

ACADEMIC POSITIONS at the University of the Orange Free State's Chemistry Department

1977 - 1978 Research Assistant in the CSIR[®] Flavonoid Research Unit.
 1979 - 1985 Lecturer in Organic Chemistry
 1986 - 1994 Senior Lecturer in Organic Chemistry
 1995 - 1996 Associate Professor in Organic Chemistry
 2006 - Sasol Professor of Organic Chemistry

POST-GRADUATE STUDENT SUPERVISION

Current research group:

Post-doc: 1
 Ph.D. students: 2
 M.Sc. students: 7

Degrees awarded:

- (i) **as co-supervisor:** 6 M.Sc. - and 2 Ph.D. students.
- (ii) **as supervisor:** 14 M.Sc. - and 3 Ph.D. students

INDUSTRIAL POSITIONS at Sasol Technology Ltd

1996 - 1999 Principal Scientist
 1999 - 2006 Chief Scientist
 2006 - Senior Chief Scientist

RESEARCH INVOLVEMENT AT SASOL

Phase 1 - Group leader of ca 5 researchers (1996 – 1999)

Catalytic distillation technology and development of acrylamide/polyacrylamide production technology.
 Production of TEB from crotonaldehyde and ethanol (plant commissioned).

Phase 2 - Line Manager for 10 - 13 researchers (2000 – 2005)

Merisol support regarding technology for the production of down stream products from phenols and cresols.
 Establishment of a Ligand Synthesis group and joint development of the novel Sasol Ethylene Tetramerisation technology.

AWARDS AND ACHIEVEMENTS

1994: C1 Rating - FRD
 1998: Stars of the Year award – Sasol Technology R & D.
 2000: Silver Innovation Award of the SA Institute of Chemical Engineers.

RESEARCH OUTPUTS

1. Papers in International Chemistry Journals: 58
2. Patents and Provisional Patents: 7
3. Conference contributions: 41 of which 2 as invited speaker.

Recent Papers

2006

The HF/BF₃ Catalysed Reaction of Substituted Benzenes with Carbon Monoxide.
JA Willemse, BCB Bezuidenhout, and CW Holzapfel, *Synthesis*, 2006, 2543.

2007

Borate Esters as Alternative Acid Promoters in the Palladium-catalysed Methoxy-carbonylation of Ethylene.

AC Ferreira, R Crous, L Bennie, AMM Meij, K Blann, BCB Bezuidenhout, DA Young, MJ Gro

Two new Promelacacinidin dimers including a novel Flavanone-flavanol dimer characterised by a unique C(3)-C(4) linkage, from the heartwood of *Acacia nigrescens*.

H Howell, E Malan, DJ Brand, BI Kamara, BCB Bezuidenhout, C Marais, and JA Steenkamp, *Chem. of Nat. Compounds*, 2007, **43**(5), 533.

2008

Studies towards the Stereoselective α -Hydroxylation of Flavanones. Biosynthetic Significance.
Z-M Border, C Marais, BCB Bezuidenhout, and JA Steenkamp, *Aust. J. Chem.*, 2008, **61**, 122.

Tetrakis(2-2-methylbenzoato)-bis(2-methylbenzoic acid)-di-copper(II).

A.C. Sunil, B.C.B. Bezuidenhout, and J.M. Janse van Rensburg, *Acta Cryst. Section E*, 2008
In the press.

CURRENT RESEARCH INTERESTS

- Methodology development for the synthesis of Flavonoids.
- Stereoselective synthesis of Flavonoids.
- Improved methodology for current industrial processes.
- Oxidation chemistry aimed at the production of oxygenated products from alkenes.
- Application of MALDI-TOF MS to the characterisation of organometallic catalysts in solution.